

We claim:

1. A process for distillatively purifying crude water-containing dimethylacetamide (crude DMAc) comprising DMAc, low boilers and high boilers by removing the low boilers and the high boilers to obtain pure DMAc in one of the column configurations listed hereinbelow:

- (I) a main column (MC) with sidestream column (SC) or
(II) a dividing wall column (DWC),

which comprises operating at least the main column (MC) in column configuration (I) and the dividing wall column (DWC) in column configuration (II) at a top pressure in the range from 0.5 to 1.8 bar absolute.

2. A process as claimed in claim 1, at least the main column (MC) in column configuration (I) and the dividing wall column (DWC) in column configuration (II) are operated at a top pressure in the range from 0.8 to 1.5 bar absolute, preferably in the range from 1.0 to 1.3 bar absolute.

3. A process as claimed in claim 1 or 2, wherein the sidestream column (SC) in column configuration (I) is operated at a top pressure in the range from 0.5 to 1.8 bar absolute, preferably from 0.8 to 1.5 bar absolute, more preferably from 1.0 to 1.3 bar absolute.

4. A process as claimed in any of claims 1 to 3, wherein separating internals having long delay times, preferably trays, are installed in the stripping section of the main column (MC) in column configuration (I) or in the stripping section of the dividing wall column (DWC) in column configuration (II).

5. A process as claimed in any of claims 1 to 4, wherein from 5 to 30, preferably from 10 to 25, more preferably from 12 to 18, theoretical plates

are provided in the stripping section of the main column (MC) or of the dividing wall column (DWC).

- 5 6. A process as claimed in any of claims 1 to 5, wherein the main column(MC) or the dividing wall column (DWC) are each equipped with a bottom evaporator and a condenser at the top of the column.
- 10 7. A process as claimed in any of claims 1 to 6, wherein the temperature at the top of the main column (MC) or of the dividing wall column (DWC) is set within the range from 70 to 130°C, preferably within the range from 85 to 115°C, more preferably within the range from 95 to 105°C, and the temperatures in the bottom of the main column (MC) and of the dividing wall column (DWC) are each set within the range from 150 to 200°C, preferably within the range from 160 to 190°C, more preferably within the range from 170 to 180°C.
- 15 8. A process as claimed in any of claims 1 to 7, wherein the distillative purification of crude DMAc is carried out in a column configuration (I) whose main column (MC) has a gaseous sidestream take off and whose sidestream column (SC) is operated in rectifying mode.
- 20 9. A process as claimed in claim 8, wherein the main column (MC) has a smaller diameter above the gaseous sidestream takeoff compared to the region of the main column (MC) below the gaseous sidestream takeoff.
- 25 10. A process as claimed in any of claims 1 to 7, wherein the distillative purification is carried out in a column configuration (I) in which the main column (MC) has a liquid sidestream and the sidestream column (SC) is operated in stripping mode.
11. A process as claimed in any of claims 1 to 10, which is operated continuously.